C8120-2

- Cinemerica Satellite Network suffers setback
- BET pushes expansion, changes satellites
- HBO, CBS Cable, WACC lead ACE nominations
- Sportschannel inks 30-year pacts with Islanders, Mets

# CableVision™

The news and features weekly of the cable television industry

May 3, 1982

## QUBE III debuts in Pittsburgh

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Addressability advances reveal hidden surprises

CableVision | Volume 7, Number 34, May 3, 1982

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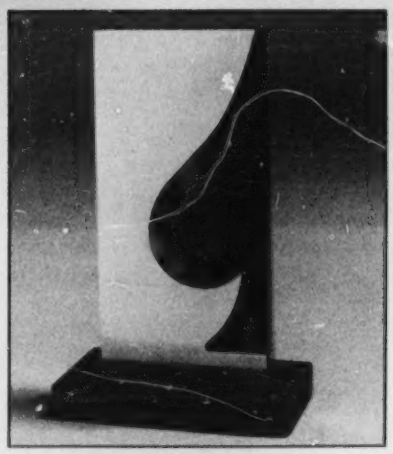

## The ACEs

Nominations for the ACE awards were announced by the NCTA last week. Leading the count were HBO, CBS Cable and WACC with the most nominations. **Leading the week, pages 13-16.**

## Disconnecting AT&T

The National Cable Television Association, which was among hundreds of parties that filed comments in the AT&T divestiture case, has urged a federal court to restrict Bell's entry into cable services. **Leading the week, pages 13-16.**

## BETing on a pair

Black Entertainment Television is pushing expansion plans back and changing satellites in the process. Westar V will be the new BET home when it pilots a prime-time course in August. **Leading the week, pages 13-16.**

## Tex book marriage

Centel Communications, Honeywell Information Systems and Field Enterprises are joining forces to produce a videotex and teletext service for Chicago. **Leading the week, pages 13-16.**

## Over—and uneasy

Cinemerica Satellite Network suffered another setback to its senior citizens channel as Daniels & Associates abandoned a search for a financial backer. **Page 22.**

## Sporting proposition

Sportschannel has locked up coverage of the New York Mets and Islanders for the next 30 years with a deal that has some industry observers shaking their heads. **Page 22.**

## Must-ering support

As must-carry provisions in the copyright compromise work through Congress, basic cable service executives are stepping up to comment on the hot issue. **Page 27.**

## Measurements by bi

bi Associates, a Maryland-based supplier of cable data, has entered the audience research fray with a new measurement tool. **Page 30.**

## Time's passage

Time Inc. shareholders were treated to a mixed bag of financial figures at the annual meeting last week. The bottom line was that the huge firm reported a first quarter drop in income. **Page 55.**

## Income potential

Oak spent nearly a year in preparing, conducting and compiling data on the future of MSOs and potential needs. The predictions include income growth and more rebuilding. **Page 55.**

## Viacom bonanza

Viacom has picked up the last hunk of the Portland area franchises while sneaking ahead of its competition in Milwaukee. **Page 61.**

## A line for every party

A panel of experts took the opportunity provided by the Washington chapter of Women In Cable to address issues surrounding the AT&T pact. As expected, the experts stayed with frequently spoken lines. **Page 63.**

## This week in *CableVision Plus*

Following a year of plagues that included design problems, delivery delays and appalling failure rates, manufacturers of addressable converters are scrambling to recoup their reputations. *CV Plus* writer Victoria Gits examines the issue, which has turned out to be a "jack-in-the-black-box" for the industry. The Operations theme continues with an examination of the evolution of QUBE, which has evolved from Columbus to Cincinnati to the third generation in Pittsburgh. **Pages 31-54.**



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This week: **Operations**

- Addressability leaves manufacturers scrambling, p. 4
- QUBE: the evolution of interactive technology, p. 14

# CableVision™

A weekly feature supplement

Vol. 1 No. 16

THE MOST COVETED CONVERTER.

From JERROLD...
the most experienced manufacturer.

GENERAL INSTRUMENT

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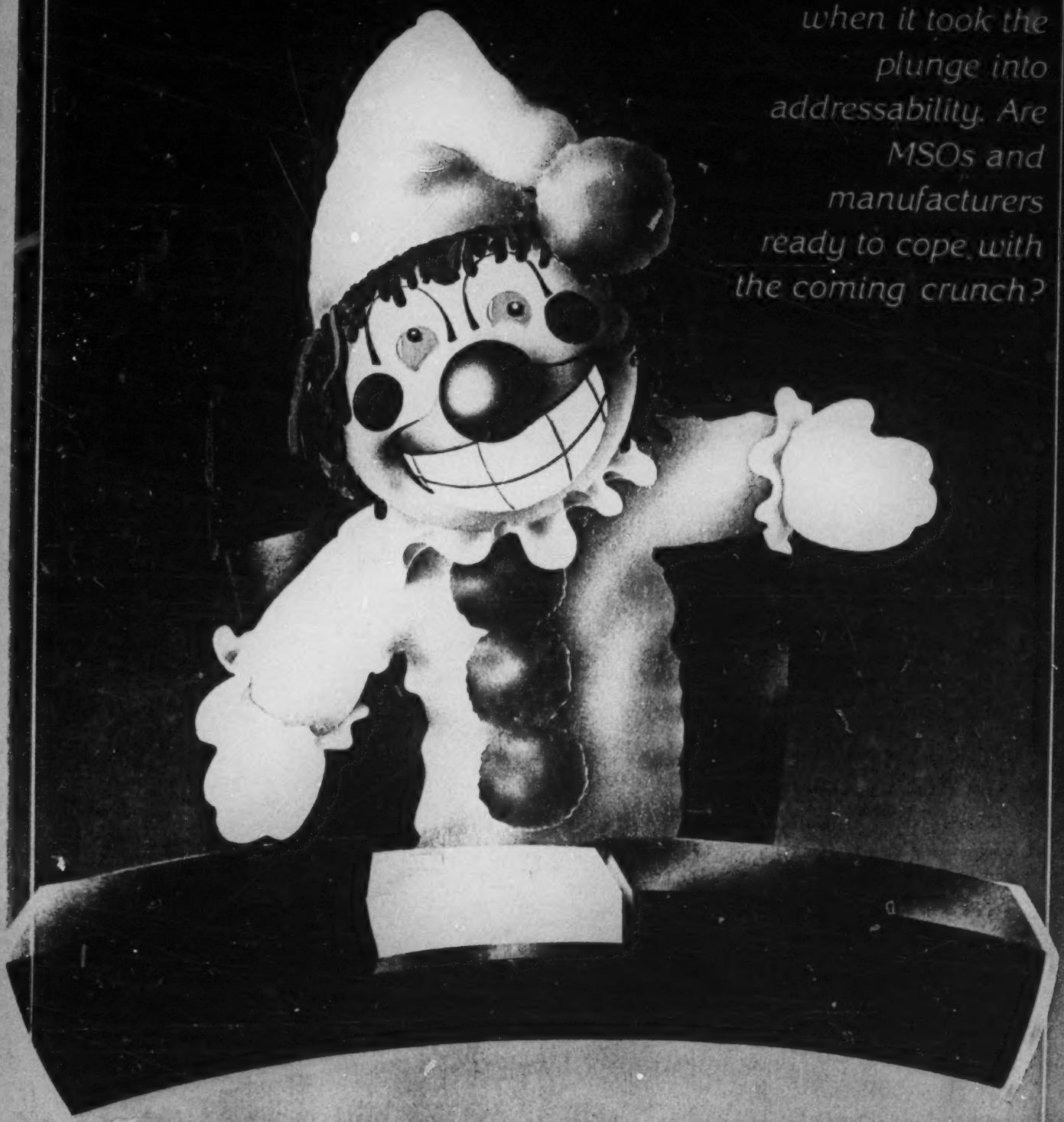
May 3, 1982

# Jack-in-the-Black-Box

*There were lots of surprises in store for the industry when it took the plunge into addressability. Are MSOs and manufacturers ready to cope with the coming crunch?*



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**By Victoria Gits**

How do you find the guys who make addressable converters? Look for the ones with the arrows in their backs.

Plagued by design problems, delivery delays and appalling failure rates in the last year, manufacturers are scrambling to recoup their reputations.

"Let's face it, the addressable converter has a tainted history. Anything that fails at a rate of 14 percent is not going to win accolades," said one frank equipment supplier. Many operators will tell you the proportion of duds was closer to 40 percent.

Sometimes it got as high as 100 percent, as was the case in Fort Worth, Texas, where Sammons was forced to halt marketing activities in January because static electricity problems blew out 1,500 TOCOM converters. They all had to go back to the factory, leaving Sammons with some 175 miles of cable system ready to go and a mere 150 subscribers.

TOCOM has since corrected the defect and Sammons reports 1,500 units delivered as of early April. The firm expects to be caught up in June. Sammons engineers say they are crazy about the product and the wait was "absolutely" worth it.

Teleprompter says a delay in delivery of Jerrold converters last year put it about a year behind in St. Louis. Cox says Oak was nine months to a year behind in Omaha and is just now getting up to speed. Cox likewise blames slow deliveries of Oak converters for postponement of the long-awaited INDAX experiment in San Diego.

Scientific-Atlanta finally dumped its first-generation, addressable 6700 after making 250,000 of them (the company blames higher-than-expected costs) and is set to go gangbusters with a brand new model, the 8500.

To those who would say the less-than-sterling track record so far has left the door wide open for the likes of Pioneer, Sony and Matsushita, for example, the Jerrolds, Oaks and TOCOMs say, "Nonsense."

The domestic makers insist they have been through the learning process, have ironed out the kinks, are ramped up and ready to deliver.

"Why would an operator choose a brand-new supplier over dealing with one he knows, one he's been through hell with and one he knows can dig him out?" says John Messerschmitt, director of marketing, subscriber products division of Scientific-Atlanta.

For the most part, cable operators surveyed by *CableVision* verify that the success ratio of addressables is substantially improved. Those few with direct experience are confident the technology works, but whether it represents a cost savings is the question that remains to be answered.

Companies are investing heavily in expanded production capacity, but whether they can get the assembly lines in shape fast enough to meet the demand is also open to debate.

Meanwhile, though the Japanese are making noises, they can hardly be said at this time to have achieved a presence.

## *Just between us*

American MSOs are reluctant to talk about their dealings in detail, though they admit off-the-record they have been carrying on conversations with Matsushita, Hitachi, Sony and others. Some potential customers have been invited to visit factories in Japan.

"They are fishing right now," said one source. "They do their homework very well first and come back later," said another.

The Japanese have had some practice at the business of making converters. Alps manufactures components and terminals for Jerrold, Matsushita for RCA, Hitachi for Hamlin and, until recently, Pioneer exclusively for Warner-Amex.

"A substantial portion" of Scientific-Atlanta's new addressable converter (the 8500) will be made in Japan by an as-yet undisclosed manufacturer, says S-A's John Messerschmitt.

The company isn't talking, but industry sources say S-A is linked to Nippon Electric Co., a firm that makes Panasonic products and was one of the pioneering manufacturers of low-noise amplifiers.

Murata makes a 36-channel nonaddressable converter for Pioneer, RCA and Scientific-Atlanta.

As the market volume shoots into the millions, the most likely trend will be to Japanese manufacture of American-designed units in ever-increasing quantities.

Two Japanese firms, however, have announced their intentions to go out on their own.

Kanematsu-Gosho (USA) Inc.,

**Projected demand* addressable converters**

*** Average of manufacturers' estimates**

## Demand for addressable converters

| | 1982 Millions | 1983 | 1984 | 1985 |
|---|---|---|---|---|
| Pioneer (one-way) | 1 | 1.5 | 2.5 | |
| Pioneer (two-way) | .275 | .275 | .295 | .360 |
| Jerrold | 1.8 | 3.4 | 5.1 | |
| Scientific Atlanta | 2 | 4 | 5 | |
| Oak | 2.3 | | | |
| TOCOM | 1.5 | 2 | | |
| Zenith | 2 | | | |
| Hamlin | .250 | | | |

New York, a subsidiary of Kanematsu-Gosho Ltd. of Tokyo, a manufacturing and trading conglomerate, will introduce its SPRUCER baseband, 64-channel converter (made by Matsushita Electric) at the NCTA show in May. It is said to bear a striking resemblance to the box Matsushita now makes for RCA.

Pioneer Industries announced in March it is taking orders for its VIP one-way addressable terminal. Pioneer's U.S. sales manager John Lanpher says the Japanese manufacturer is prepared to "double, triple or quadruple" production capacity if demand warrants it.

"We don't have to invest a lot of money in new facilities," Lanpher says. "The whole investment in robotics, parts procurement and purchasing power already is there."

### *The users' views*

Cox Cable's Gary Tjaden, vice president of engineering and technology, who was quoted in a *Business Week* article (March 8) as saying he couldn't get reliable converters in volume quantities, has revised his opinion recently. "I'm getting volume quantities now. How reliable they are is another question," said Tjaden in early April.

"There have been problems all along, but they (American manufacturers) have shaken out most of them." He says the quality in general is not yet as good as it should be. "In any other industry you would go out of business." Cox intends to buy nearly one million addressable converters in 1982 and 1983, and Tjaden is convinced the Japanese can manufacture a higher quality product less expensively. "They have a very good shot at it," he says.

He adds that the Japanese have "better expertise in the RF area (the tuning circuitry), the guts of the unit... They are not as good at digital technology. They don't understand it."

To those who argue the Japanese are lacking in software capability, Tjaden says the same could be said of domestic manufacturers. "The Japanese are smart enough to go where they can get it."

What's at stake in this brewing battle is a market for addressable converters estimated by several manufacturers to be in the neighborhood of two million in 1982. Hamlin's president Jim Forgey, however, guessed a more conservative 250,000. "There's a lot of hype out there," he says. By 1983 and 1984, the demand could be as high as four million and five million units, one supplier ventured.

Driven by franchise wars, the proliferation of pay services and the glint of pay-per-view, the size of the take has escalated drastically. "It's bigger than we thought it would be. We didn't expect it to develop so fast," says Wayne Churchman, TOCOM's director of marketing.

Demand has moved so fast, Oak Communications has had to revise its sales forecasts upwards 16 percent recently, compared to October of last year. Where the proportion of addressables was thought to be 33 percent of the total production in 1982, the share shot up to 49 percent by March, leaving Oak with a $90-million backlog in orders for its intelligent boxes.

Between now and September, MSOs will be taking a hard look at the choices. "The battles are going on now behind closed doors," says Messerschmitt.

Teleprompter, with some 350,000 homes under construction in newly franchised areas, can be expected to invest in addressability in a big way in the next two years. Kazie Metzger, vice president of strategic planning and development, says the company is in the process of designing its own specifications for addressable converters in 1982 and 1983. "We're not talking about a totally different unit," Metzger says. "We're looking for the one that is the best for us. Reliability and security are very important to us. This (pay TV) is a very expensive consumer service." Teleprompter is talking to Oak, Jerrold, Zenith and TOCOM. In Middletown, Conn., (10,000 subs) on April 1, the company began a test of 2,700 Oak addressable converters in connection with a pay-per-view experiment. The cable company is selling a series of six movies a month at $5 each. Teleprompter is installing Jerrold converters in its St. Louis system as they become available.

American Television and Communications (ATC) is taking the "slow, methodical approach," says vice president of engineering Larry Janes. Though ATC has Oak addressables in place in Honolulu, Janes doesn't expect the big buys to be made until 1983. Meanwhile, ATC is examining the options and has narrowed the field to three for extended field tests: Scientific-Atlanta, Zenith and Jerrold.

When asked why neither Oak nor TOCOM were among the finalists, ATC's Bob Rast, vice president for research and development, said they weren't as cost-effective. (Oak addressable converters are priced from $112 to $130. TOCOM's cost is $149.) The early static electricity problems in the TOCOM units was not a factor, Rast says. As for Zenith, he says the units "offer the best scrambling approach available today." (Zenith and ATC allied several years ago to create SSAVI, the STV decoder used in the MSO's over-the-air pay markets.)

Rast says ATC has had conversations with the major Japanese equipment manufacturers about cable-related needs in general,

not specifically in connection with addressable converters. But he wouldn't be surprised, he says, if the Japanese got into the addressable market.

"The product evaluation is one of the more difficult I've ever gotten involved in," Janes says. "One vendor might have good hardware and unreliable software...What makes it difficult is each manufacturer has a different design. You can't make apples and apples comparisons." Janes dismisses technical problems with the first generation units saying, "Every new product needs fine tuning." He adds, however, "Oak (units) are much, much better now than the ones we first got."

Al Gilliland, president of Gill Cable, rates addressability a "huge success" in San Diego after a year spent fine-tuning 25,000 Oak boxes initially distinguished by a reject rate of up to 40 percent and field failure rate of three percent a month. After a trip back to the drawing boards, the reject rate is down to 15 percent, Gilliland reports, and the field failure rate is two percent. "Still a great deal of room for improvement," he says.

Gilliland uses software designed by his own Gill Management Services. Gill Cable offers one pay-per-view event per month and is testing the response to six early-release movies, including *Tattoo* and *Mommie Dearest* this year. Gilliland is convinced the technology works, but he expects the industry to have delivery problems for the next five years.

Addressability is a subject that figures prominently in Tele-Communications' plans for the near future. In fact, as far as is known, president John Malone's intention to go totally addressable in three years—at a cost of $500 million—is the most ambitious to date. Malone's idea is to create a nationwide system with central billing operations and proprietary program guide, a move linked to the company's purchase of a Westar IV transponder.

Meanwhile, TCI engineers are engaged in investigating the options and the consequences. Among the company's properties today, there are only two systems equipped with addressable boxes and TCI has owned them only two months—not long enough to judge.

Dave Willis, TCI's director of engineering in Denver, sums up his mission like this: "We don't know if it's realistic. We do know we have a mandate to find out." The trick is to figure if the risk is worth the reward. To the expenses associated with the hardware and software itself, Willis says evaluators must add in transportation and communications costs associated with centralized billing, plus the price of encoding channels and advanced headend equipment.

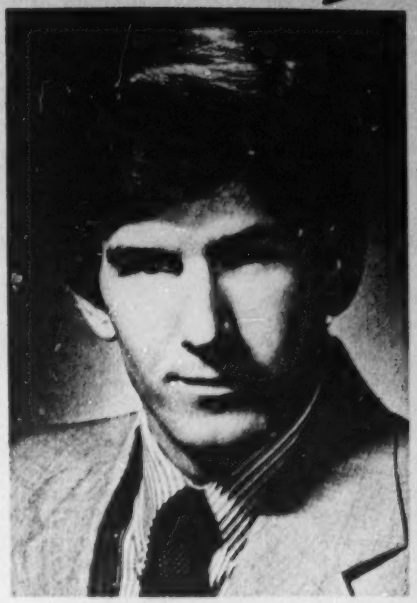
Preliminarily, it seems, the only true savings applies to change of service level and not connects and disconnects, Willis says.

United Cable, Denver, has pledged to go addressable in Scottsdale, Ariz., Oakland County, Mich., and Alameda, Calif. The company has had a disappointing experiment with TOCOM in a suburban Denver, Colo., system. Jim Dovey, vice president and general manager of United Cable of Colorado, says every one of a batch of 240 TOCOM converters shipped in December and January had to be sent back and retrofitted, due to static electricity breakdowns. United is re-installing the boxes in 200 homes and will run some more tests before ordering any more. Dovey is not at all confident the technology will be acceptable within 12 months. It's more like two years away, he says. United is looking at Zenith, TOCOM, Jerrold and Oak.

After suffering through the agony of not knowing whether addressability would work, Viacom Cable of Milwaukee County's South Suburban Systems has become a believer. General manager Arden Tyler says he is quite pleased with the 1,000 Zenith Z-TACS installed since the end of January.

Being only 90 miles away from the Zenith factory might have something to do with the suppliers' prompt delivery, Tyler says. He is "absolutely" convinced the program will save money in the long run, although initially, installing it required more staff than expected. Viacom had to hire one full-time person to run the computer. Zenith is shipping units in quantities of 1,200 to 1,500 a month, Tyler says. The quality varies a great deal from shipment to shipment. Some days the failure rate might be 10 to 20 percent; on others it's 50 percent.

Elsewhere in the Viacom family, Oak addressables are winning high marks. Neil McHugh in San Francisco, with 15,000 addressables installed out of some 60,000 possible subscribers, says his experience has been "excellent," both in regard to delivery and quality control. He says the failure rate of 10 to 12 percent is



*Pioneer's John Lanpher says the Japanese manufacturer is prepared to 'double, triple or quadruple' production capacity if demand warrants it.*

*'In any other industry you would go out of business.'*

*Cox Cable's Gary Tjaden on quality of addressable converters*

equivalent to that of non-addressables. Viacom of San Francisco has ordered 20,000 boxes for 1982.

## The supply side

Establishing that the technology actually works and is relatively reliable is one thing. Manufacturing addressable converters in sufficient quantities to meet the need is another.

Using numbers supplied by Jerrold (a division of General Instrument Corp.), it appears the demand for addressable units is 1.8 million in 1982, nearly a 300 percent increase over the estimated 630,000 shipped by all manufacturers combined in 1981.

The suppliers, as a rule, were willing to unveil neither projected monthly production quotas nor actual production capacity. So it is impossible to say how close they are to hitting the two-million mark in 1982.

Looking at the lineup, two players with the most years of experience in the business are Pioneer and Oak. Warner turned on the first Pioneer-engineered QUBE system in Columbus, Ohio, December 1, 1977, the same year Oak was using an addressable concept in connection with its STV broadcasts in Los Angeles. Oak installed its first on-line TotalControl system in Nashville, Tenn., for Viacom Cablevision in March 1980. TOCOM introduced the 55 Plus addressable converter (with text display) in May 1980, and in December 1980 came out with a baseband model, the 5504A. The first shipment of 5504As was in June 1981.

Jerrold introduced addressability at the NCTA show in May 1980, and shipped the first system in Feb. 1981 to International Cable's Buffalo, N.Y., system. Scientific-Atlanta shipped its first batch of addressables (the 6700s) in July 1980 and built 250,000 of them before abandoning the product in favor of the 8500, which goes into production in September 1982.

The first Zenith Z-TACS went on the market in late November 1981. Newcomer C-COR expects to go into production of its pole-mounted SCAT System within six months. Meanwhile, Texscan, another proponent of off-premises devices, projects delivery in July of this year.

Prompted by Chuck Dolan, who was having trouble with off-air interference at Manhattan Cable in the late '60s, Oak began mass production of nonaddressable converters in 1967 and 1968. It was making its first addressables for STV by 1977 and in April 1979 introduced the first 35-channel box (excluding QUBE) to the cable industry and booked its first order. Its timing was impeccable.

Oak shipped 80,000 addressables in 1980; 250,000 in 1981. The orders for its TC-56 are coming in so fast for 1982, Oak has stopped accepting them until August. The units are priced from $112 for the TC-35 to $130 for the TC-56. Oak claims to have 25 addressable systems equipped as of mid-April.

Marketing vice president Dean Bach says Oak has made 72 percent of the units sold nationwide to date.

Bach concedes the company has to "regroup" after initial failure rates as high as 20 percent. It took a year to work the bugs out, but now Bach says the rate is down below five or six percent.

Oak touts a 12-month full warranty including repair or replacement and freight charges, plus a 15-person staff of traveling troubleshooters, up from eight in 1980. A new company-sponsored quality assurance program has been set up to keep records of converter failures and the causes.

With a capacity of producing one million to 1.3 million addressable boxes in 1982, depending on the speed of ramp-up, Oak apparently intends to capture the lion's share of the market.

Last November Oak occupied a brand-new, 110,000-square-foot factory in Carlsbad, Calif. and added 85,000 square feet to its plant in Taiwan, nearly tripling its manufacturing capacity. The number of employees is set to double by the end of the year.

By its own count, Jerrold is winning the contest for the most addressable systems installed—37 to date. Exactly how many units that number represents is a secret, although the company is quite willing to say it will deliver four million converters of all types in 1982.

Manufacturing capacity for addressable converters has been "radically increased," says Jerrold's vice president of sales John Ford, pointing to a former Taiwan tuner factory recently converted for that use. Jerrold boxes range in price from $98 to $102 (36-channel) and $103 to $117 (56-channel). Software (including computer) ranges from $28,000 for a system accommodating 32,000 subscribers to $92,000 (256,000 subscribers). Modules are manufactured at plants in Mexico, Taiwan and Japan (Alps Electric). Final product assembly is handled in Taiwan, Japan and Canada.

The company claims to have a production capacity equal to 100 percent of today's total market. Ford quotes a lead time of 90 days for 5,000 units as of mid-April.

TOCOM, an industry leader in home security, started manufacture of its addressable entry in June 1981. By the end of the year, TOCOM had delivered some 5,000 units, says Wayne Churchman, director of marketing.

Static electricity proved to be the nemesis of the original product and TOCOM was forced to suspend further shipments for six weeks in January and February. "Our engineers said the weather in Matamoros, Mexico (where the boxes were tested), was out of spec," Churchman says wryly.

Having corrected the problem, Churchman says TOCOM has a $30-million backlog to fill. In addition to Sammons, major customers are Storer and Teleprompter.

TOCOM built a new 25,000-

square-foot facility in Matamoros, is currently producing 8,000 units per month and is targeting 30,000 units per month by the end of the summer. (A competitor thinks that's stretching it.)

Aiming for the high end of the market and a $149 price tag, the TOCOM 55 Plus terminal is baseband designed, allowing teletext transmission in the vertical blanking interval.

After investing $8 million to $10 million in research and development of an addressable converter, Scientific-Atlanta is not about to call it quits, despite the fact it had to start over with a new product when it threw out the 6700.

Director of marketing John Messerschmitt is convinced the new, moderately-priced ($120) SA 8500 incorporates features that set it apart from the rest.

To foil tampering, S-A uses two, 8-bit microprocessors that interpret data delivered from the headend. To steal the service, one has to figure out the code. "It's substantially more difficult than clipping a wire," says Messerschmitt, "and the amount of equipment it would take would be worth a small laboratory."

S-A aims to ship over one million addressable units in 1983, says Messerschmitt. The first shipment of the 8500 is set for September and the entire production quota is sold out through December. He is not particularly worried about competition from the Japanese. "You can make the nonaddressables like popcorn, but when you get into 400 MHz, you are talking about systems." Only the Americans have the four factors required to accomplish a switch to addressability: systems, service, engineering and marketing, Messerschmitt adds.

Like Oak, Zenith got its start manufacturing addressable subscriber decoders for the STV industry. Though it shipped more than 5,000 Z-TAC addressables in 1981, the company said it has, by and large, resisted the "tremendous pressure" to get products out too fast.

Clearly intent on becoming a major contender, Zenith is capable of producing more than 750,000 units (nearly half the estimated market demand) in 1982, says Jim Faust, general manager, CATV/STV.

Major customers are Viacom, Valley Cable, Western Communications and Cable Video Communications, plus "a whole bunch of handshakes," says Faust. Zenith addressables are in place in Minneapolis, Milwaukee suburbs, and Arlington, Texas. The price is $6,000 per scrambled channel, plus $50,000 for the controlling computer (INTEL) and software.

Jim Forgey, president of Hamlin International, a Seattle-based supplier that markets the Hitachi-made nonaddressable converter under the Hamlin name, thinks the talk about two million units in 1982 is so much "hype." Nevertheless, Hamlin is set to enter the market with the introduction of three addressable models at the NCTA show in May. The company currently ships some 200,000 nonaddressables per month. Forgey says Hitachi has expanded production capacity to accommodate 100,000 extra units a month—all of which could be turned over to addressable if the demand so warranted. But Forgey is pessimistic on that account, guessing the demand in 1982 is closer to 250,000 than two million.

## Newcomers

The Texscan Corp., a firm well-known for its line of distribution and test equipment, is putting its money on the proposition that indoors is no place to put an expensive electronic device. "It's an excellent opportunity to tamper with it," says Raleigh Stelle, vice president of marketing, Texscan, Phoenix, Ariz.

The Texscan Remote Addressable Converter System (TRACS) employs a handheld key pad in the home (about $49) and a strand-mounted mini-computer that services up to 16 sets. The total cost per TV set served is $160, including the inside component.

Designed by a Phoenix-based firm, the companion software can accommodate from 2,000 to 1,048,000 subscribers on four levels of service.

Texscan expanded its El Paso, Texas, plant by 30,000 sq. ft. and will build a new factory in Juarez this year. The firm expects to ship 75,000 to 100,000 units in 1982, and targets delivery of the first units by the end of July of this year.

It's taken two years to get the product off the ground, but C-COR Electronics, State College, Penn. is set to go into production within six months. Like Texscan's entry, C-COR's SCAT System is an off-premises device. Fifty units now are being field-tested. The home key pad

*'The weather in Matamoros (where the boxes were tested) was out of spec.'*

*TOCOM's Wayne Churchman on static electricity problems*

is priced at $25 and the outdoor hardware at $180 per subscriber.

The cable division of RCA shipped about 100,000 nonaddressable boxes in 1981 and will announce at the NCTA show an "add-on" component allowing upgradability to addressable. The parts will be available for delivery at the end of 1982. An addressable product is in the planning stages, but won't be available for delivery until late in 1982. RCA converters are made in Japan by Matsushita.

It has been a rocky road to addressability for more than one manufacturer so far, and if the skyrocketing predictions come true, 1982 and 1983 could prove equally trying. Suppliers will be pressed to the limit, the deadlines are more critical, the attitude of customers more skeptical. All the time, they'll be listening for the footsteps of the Japanese behind them.

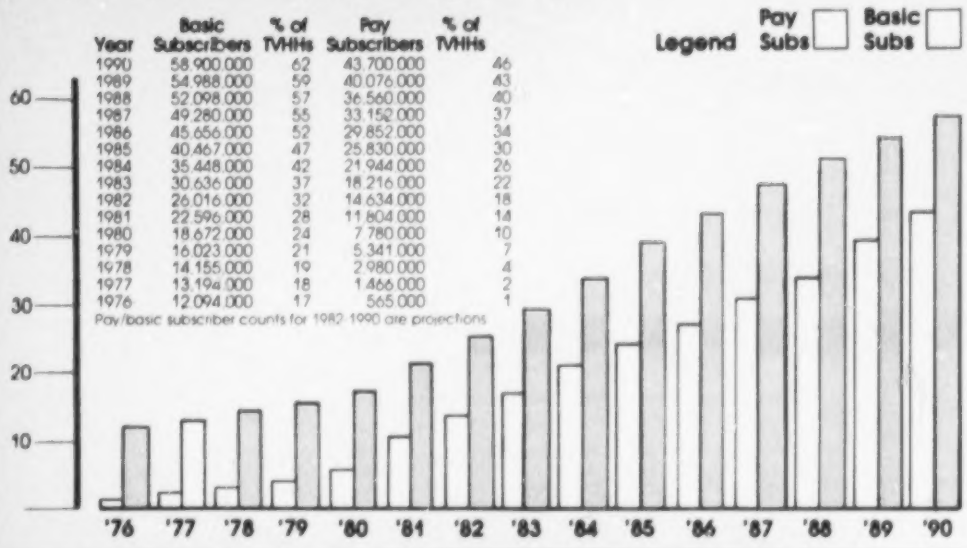
As one sales executive put it, making an addressable converter compared to a nonaddressable is like a lawnmower one year and a computer the next. So what if the pioneers have arrows in their backs to show for their troubles? The stakes are too big for anything to keep them down now.

# Cable stats

## Pay/basic cable growth

| Year | Basic Subscribers | % of TVHHs | Pay Subscribers | % of TVHHs |
|---|---|---|---|---|
| 1990 | 58,900,000 | 62 | 43,700,000 | 46 |
| 1989 | 54,988,000 | 59 | 40,076,000 | 43 |
| 1988 | 52,098,000 | 57 | 36,560,000 | 40 |
| 1987 | 49,280,000 | 55 | 33,152,000 | 37 |
| 1986 | 45,656,000 | 52 | 29,852,000 | 34 |
| 1985 | 40,467,000 | 47 | 25,830,000 | 30 |
| 1984 | 35,448,000 | 42 | 21,944,000 | 26 |
| 1983 | 30,636,000 | 37 | 18,216,000 | 22 |
| 1982 | 26,016,000 | 32 | 14,634,000 | 18 |
| 1981 | 22,596,000 | 28 | 11,804,000 | 14 |
| 1980 | 18,672,000 | 24 | 7,780,000 | 10 |
| 1979 | 16,023,000 | 21 | 5,341,000 | 7 |
| 1978 | 14,155,000 | 19 | 2,980,000 | 4 |
| 1977 | 13,194,000 | 18 | 1,466,000 | 2 |
| 1976 | 12,094,000 | 17 | 565,000 | 1 |

Pay/basic subscriber counts for 1982-1990 are projections.




## Cable barometer

Television households (TVHH) ... 80,700,000

Homes passed by cable (HP) 42,000,976

Percent of TVHH passed by cable .... 52.05%

Basic cable subscribers 22,821,167

Percent of TVHH with basic cable . 28.28%

Percent of HP with basic cable . 54.34%

Pay cable subscribers 12,051,461

Percent of TVHH with pay cable .. 14.93%

Percent of HP with pay cable .. 28.69%

Percent of basic subs with pay cable 52.81%

## Film product comparison—May

| Film | Networks | | | | | Distributor |
|---|---|---|---|---|---|---|
| A Force of One | HBO | | | | | HBO |
| A Little Romance | | | | HTN | | Warner Bros. |
| An Enemy of the People | | | | HTN | (C) | Warner Bros. |
| An Eye for an Eye | HBO | | TMC | | | Wescom |
| Abba—The Movie | | | | (HTN) | C* | Warner Bros. |
| Airplane | | | (TMC) | HTN* | | Paramount |
| Alice Sweet Alice | (HBO) | ST | | | | Lorimar |
| All That Jazz | (HBO) | ST* | (TMC) | | | 20th Century-Fox |
| All the Fine Young Cannibals | | ST | | | | MGM/UA |
| The Amazing Adventures of Joe 90 | | (ST) | | | C | ITC |
| American Gigolo | | ST | TMC* | | | Paramount |
| The Americanization of Emily | HBO | | | | | MGM/UA |
| Animals are Beautiful People | | | | HTN | | Warner Bros. |
| The Apple Dumpling Gang Rides Again | HBO | | TMC | HTN | | Disney/Buena Vista |
| Ashanti | | | | | C | Warner Bros. |
| The Attic | | ST | | | (C) | Film Gallery |
| The Awakening | HBO | (ST) | | | | Warner Bros. |
| Bedknobs and Broomsticks | (HBO) | ST* | | HTN* | | Disney/Buena Vista |
| Bells are Ringing | | (ST) | | | C* | MGM/UA |
| Beyond the Reef | HBO | | | | | Dino DeLaurentis |
| Billy Jack | | | | | C | Warner Bros. |
| The Black Hole | (HBO) | ST | (TMC) | (HTN) | | Disney/Buena Vista |
| The Blackboard Jungle | | (ST) | | | C | MGM/UA |
| Blood Barrier | (HBO) | ST | | | | Herndale |
| The Blues Brothers | (HBO) | ST | (TMC) | | | Universal |
| Breaker Morant | (HBO) | (ST) | (TMC) | HTN* | | New World |
| Breaking Glass | (HBO) | | TMC* | | | Paramount |
| Brubaker | | ST | TMC* | | | 20th Century-Fox |
| Cafe Express | | | TMC | | | Swank |
| Captain Scarlet vs. the Mysterons from Mars | | ST | | | | ITC |
| Carbon Copy | HBO | | | | | Embassy |
| Cardiac Arrest | HBO | | TMC* | | | Film Ventures |
| Cat and the Canary | (HBO) | | TMC | | (C) | Universal |
| Cattle Annie and Little Britches | | | | | C* | Herndale |
| Caveman | HBO | | (TMC) | | | MGM/UA |
| Chandler | | ST | | | | MGM/UA |
| The Children of Theater Street | | | | | C* | Peppercorn-Wormser |
| Cloud Dancer | | | TMC* | | | Viacom |
| Coast to Coast | | | | HTN* | | Paramount |
| Cotton Candy | | | | | C* | HBO |
| Covert Action | | | | | C | HBO |
| Cutter's Way | | | TMC | | | MGM/UA |
| The Daybreakers | HBO | | | | | TeleMine |
| Deadly Games | | ST* | | | | Atlantic |
| Death Hunt | HBO | ST | TMC | | | 20th Century-Fox |
| Despair | HBO* | | | | | New World |
| Dog Day Afternoon | | ST | | | | Warner Bros. |
| The Dogs of War | HBO | | | | | MGM/UA |
| The Earthling | (HBO) | | TMC | | | Filmways |
| The Electric Horseman | (HBO) | ST | TMC* | (HTN) | | Columbia |
| The Elephant Man | (HBO) | (ST) | (TMC) | HTN* | | Paramount |
| Escape from New York | HBO* | | | | | Embassy |
| The Evil | | | | | C | New World |
| Excalibur | HBO | ST | TMC | | | Warner Bros. |
| Eyes of a Stranger | (HBO) | | TMC | | | Warner Bros. |
| Fame | | | TMC* | | (C) | MGM/UA |
| Family Enforcer | | | | | C | Gold Key |
| Family Man | | | | | C | HBO |
| The Fan | HBO | ST | TMC | | | Paramount |
| Far From the Madding Crowd | | ST | | | | MGM/UA |
| ffolkes | HBO | ST | | HTN | | Universal |
| The Fiendish Plot of Dr. Fu Manchu | | | (TMC) | (HTN) | C | Warner Bros. |
| The Fifth Floor | | (ST) | TMC | | C | Film Ventures |
| Fillmore | | | | | C* | 20th Century-Fox |
| The Four Seasons | HBO | ST | TMC | HTN | | Universal |
| The Frisco Kid | | | | HTN | (C) | Warner Bros. |
| From Hell to Victory | HBO | | | (HTN) | | Worldvision |
| Gigi | (HBO) | ST* | | | | MGM/UA |
| The Glass Bottom Boat | | ST* | | | | MGM/UA |
| The Golden Gate Murders | | | | HTN | | Universal |
| Graduation Day | | | | | C | Wescom |
| The Green Horizon | | ST | | (HTN) | | Sunrio |
| The Hand | HBO | | (TMC) | | | Warner Bros. |
| Hangar 18 | (HBO) | (ST) | (TMC) | HTN | | Worldvision |
| Happy Birthday to Me | HBO* | | (TMC) | | | Columbia |
| Hard Country | HBO* | | TMC | | | AFD |
| The Haunting of Julia | HBO | | | | | Show Biz |
| Hawk the Slayer | | ST* | | | (C) | ITC |
| He Knows You're Alone | | | TMC | | C* | MGM/UA |
| Heidi | | | | HTN* | | Warner Bros. |
| The Heist | | | (TMC) | | C | Gold Key |
| The High Country | | | TMC* | | | Crown International |
| H.O.T.S. | | ST | | | (C) | The Blum Group |
| Hollywood Boulevard | | ST | | | C | New World |
| Hot Lead and Cold Feet | HBO* | (ST) | TMC* | HTN* | | Disney/Buena Vista |
| The Howling | | ST* | (TMC) | | (C) | Wescom |
| Hugo the Hippo | | ST* | | HTN* | | Columbia |
| I'm All Right Jack | | | | | C | Viacom |
| The Idolmaker | (HBO) | | TMC | | | MGM/UA |
| Improper Channels | (HBO) | | (TMC) | HTN* | | Crown International |
| The Incredible Shrinking Woman | (HBO) | ST | (TMC) | (HTN) | | Universal |
| Invaders from the Deep | | ST* | | | | ITC |
| Jules and Jim | | | | | C* | Janus |

# Cable stats

| Film | Networks | | | | | Distributor |
|---|---|---|---|---|---|---|
| Julie | | ST | | | | MGM/UA |
| The Kids are Alright | | | | | C | New World |
| Kill and Kill Again | HBO* | | | | | Filmways |
| Kill or Be Killed | | | (TMC) | | C | Film Ventures |
| King of the Mountain | HBO* | | | | | Polygram |
| La Cage aux Folles | | | | | C* | MGM/UA |
| La Cage aux Folles II | | ST | (TMC) | | C | MGM/UA |
| The Last Chase | HBO* | | | | | ARG |
| The Late Show | | | | | C* | Warner Bros. |
| Legend of the Lone Ranger | HBO | | | | | AFD |
| Lolita | | (ST) | | | C | MGM/UA |
| Look Back in Anger | | | | | C | Samuel Goldwyn Co. |
| The Looney, Looney Looney Bugs Bunny Movie | | ST | TMC | HTN | | Warner Bros. |
| Loving Couples | | | | HTN | (C) | 20th Century-Fox |
| The Man Who Fell to Earth | | | | | C* | Cinema 5 |
| The Man with Bogart's Face | | | | (HTN) | C | Viacom |
| The Marvelous Land of Oz | | | | HTN | | Universal |
| Massacre at Central High | | ST | | | (C) | Viacom |
| Mean Streets | | | (TMC) | | C | Warner Bros. |
| Meanest Men in the West | | | | HTN | | Universal |
| Melvin and Howard | HBO | (ST) | (HTN) | | (C) | Universal |
| Middle Age Crazy | | | | | C* | HBO |
| Mister Buddwing | | ST* | | | | MGM/UA |
| Monty Python and the Holy Grail | | | TMC | | | Cinema 5 |
| The Mountain Men | (HBO) | ST* | (TMC) | | | Columbia |
| Mulefeathers | | ST* | | | | Gold Key |
| My Bodyguard | (HBO) | ST* | (TMC) | HTN* | | 20th Century-Fox |
| Network | HBO | | (TMC) | | | MGM/UA |
| Night Moves | | | | | C | Warner Bros. |
| Nine to Five | (HBO) | (ST) | (TMC) | HTN* | | 20th Century-Fox |
| Oh, God! Book II | | | TMC* | (HTN) | (C) | Warner Bros. |
| Oliver Twist | | | | HTN* | | Warner Bros. |
| On the Right Track | | | TMC | | | 20th Century-Fox |
| The Other Side of the Mountain—Part I | | | | HTN | (C) | Universal |
| The Outlaw | | | | | C | Universal |
| Outlaw Blues | | | | HTN | (C) | Warner Bros. |
| The Outlaw Josey Wales | HBO | | | | | Warner Bros. |
| Paper Tiger | | | TMC* | | | Castle Hill |
| Penelope | | (ST) | | | C | MGM/UA |
| Phobia | (HBO) | (ST) | TMC | | | Paramount |
| Pick-Up Summer | | ST | | | | Film Ventures |
| The Pilot | | | | HTN* | | Atlantic |
| Private Benjamin | | | TMC* | | | Warner Bros. |
| The Private Eyes | | | | HTN* | (C) | HBO |
| Raintree County | | ST | | | | MGM/UA |
| Resurrection | | ST | | | | Universal |
| Return of the Secaucus Seven | | | TMC* | | C* | Libra |
| Roller Boogie | (HBO) | | | HTN | C | MGM/UA |
| Rough Cut | | (ST) | TMC | (HTN) | | Paramount |
| Ruckus | HBO* | | (TMC) | | | International Vision |
| Salem's Lot: The Movie | HBO | (ST) | (TMC) | | | Warner Bros. |
| Savage Harvest | HBO | | | | | Savage Harvest Inc. |
| Second Wind | | | | | C* | Electric Picture Co. |
| Secret Valley | | | | | C | TeleMine |
| Seems Like Old Times | | | (TMC) | HTN | | Columbia |
| Seizure | | | | | C* | HBO |
| Seven | | ST* | | | | Viacom |
| Sex and the Single Parent | | | | | C | HBO |
| Sextette | | | TMC | | | Crown International |
| She's 19 and Ready | | (ST) | | | C | TeleMine |
| The Shogun Warriors: Dan Guard Ace | | ST* | | | | Blum Group |
| The Shogun Warriors: Spacekeffers | | ST | | | | Blum Group |
| Silk Stockings | | ST | | | | MGM/UA |
| Smokey and the Bandit | | | TMC | | | Universal |
| Smokey and the Bandit II | HBO | (ST) | TMC* | HTN* | | Universal |
| Smokey Bites the Dust | HBO* | | (TMC) | | | New World |
| Something of Value | | (ST) | | | C* | MGM/UA |
| Starting Over | | ST* | | | | Paramount |
| Steel | HBO | | | HTN* | (C) | World Northal |
| Stevie | | | TMC | | C | Samuel Goldwyn Co. |
| Stir Crazy | (HBO) | ST* | (TMC) | | | Columbia |
| Swinging Cheerleaders | | ST* | | | | Delta |
| Take This Job and Shove It | HBO* | | | | | Embassy |
| Tell Me a Riddle | | | TMC | | | Film Gallery |
| Terror Train | HBO* | ST | | | | 20th Century-Fox |
| The 39 Steps | | | | HTN | | Rank |
| Thunder of Drums | | ST | | | C | MGM/UA |
| Tim | | | | HTN | | Satori |
| Toby and the Koala Bear | | ST | (TMC) | | | Satori |
| Touched by Love | HBO | (ST) | | (HTN) | | Columbia |
| Tribute to a Bad Man | | (ST) | | | C | MGM/UA |
| Tuck Everlasting | | | (TMC) | HTN* | C | Cox Films |
| Up River | | (ST) | (TMC) | | C | Gold Key |
| Up the Academy | HBO* | | (TMC) | | | Warner Bros. |
| The V.I.P.'s | | ST | | | | MGM/UA |
| Who Says I Can't Ride a Rainbow? | | ST* | | | | Gold Key |
| Wild and Beautiful on Ibiza | | ST* | | | | K-Pay |
| Willie and Phil | (HBO) | ST* | TMC | | | 20th Century-Fox |
| You Light Up My Life | | | | | C | Columbia |
| Young and Free | HBO | (ST) | | | | Manson |
| Young Lady Chatterly | | ST | | | | Simcom |

■ **Cable Network Legend**

HBO—Home Box Office
ST—Showtime
TMC—The Movie Channel
HTN—Home Theater Network/HTN Plus (launching this month)
C—Cinemax

■ Networks in parentheses indicate carriage in December, January, February, March and/or April.

■ An asterisk following a network indicates the film is a carry-over from December, January, February, March and/or April.

■ In total, 184 films appear on the May schedules of HBO, Showtime, The Movie Channel, HTN/HTN Plus and Cinemax. Of those titles during the last six months, 12 films have appeared on four of the five services, 28 on three and 57 on two networks. Eighty-seven titles are unduplicated.

■ The motion picture distributor to pay cable with the most titles featured this month is MGM/UA with 28, followed by Warner Brothers with 25, and Universal with 14.

■ Alan Alda's human comedy, "The Four Seasons," occupies the May program guide covers of HBO, Showtime and The Movie Channel. Showtime's guide also features artwork depicting scenes from several specials, including its Broadway production of "The Country Girl." Coming with "The Four Seasons" on the HBO/Cinemax guide are "Excalibur," "Legend of the Lone Ranger" and "The Fiendish Plot of Dr. Fu Manchu." HTN's cover is animated—"The Looney, Looney, Looney Bugs Bunny Movie."

# Top 20 MSOs

| Rank | Multiple System Operator | Subscribers |
|---|---|---|
| 1. | Tele-Communications Inc. | 1,900,000 |
| 2. | American Television and Communications (12/81) | 1,810,000 |
| 3. | Group W Cable (formerly Teleprompter) (1/82) | 1,642,381 |
| 4. | Cox Cable Communications, Inc. | 1,131,981 |
| 5. | Storer Cable Communications | 920,000 |
| 6. | Warner Amex Cable Communications, Inc. | 907,266 |
| 7. | Times Mirror | 675,847 |
| 8. | Newhouse Broadcasting* (2/82) | 595,576 |
| 9. | Rogers-UA Cablesystems | 589,385 |
| 10. | Viacom Cablevision** | 532,440 |
| 11. | Continental Cablevision (2/82) | 467,939 |
| 12. | United Cable Television Corporation (1/82) | 463,494 |
| 13. | Sammons Communications (2/82) | 453,021 |
| 14. | TeleCable Corporation | 309,900 |
| 15. | Capital Cities Cable | 297,420 |
| 16. | General Electric Cablevision Corporation | 295,000 |
| 17. | Heritage Communications | 248,231 |
| 18. | Comcast Corporation | 228,473 |
| 19. | Liberty Communications | 226,000 |
| 20. | Cablevision Systems Development (2/82) | 222,878 |

**Note:** Subscriber counts are as of 3/31/82 unless noted otherwise.
*Newhouse Broadcasting includes MetroVision, NewChannels, Vision Cable
**Viacom Cablevision includes 40% ownership in Nor-Cal Cable

# Top 20 systems

| Rank | Location | Operator | Subscribers |
|---|---|---|---|
| 1. | San Diego, CA | Cox Cable | 213,760 |
| 2. | Manhattan, NY | ATC | (12/81) 153,800 |
| 3. | Oyster Bay (Long Island), NY | Cablevision Systems Development | (2/82) 148,071 |
| 4. | West Orange, NJ | Maclean Hunter Cable | (2/82) 134,101 |
| 5. | Los Angeles, CA | Teleprompter | (12/81) 104,750 |
| 6. | Wayne, NJ | Rogers UA Cablesystems | 104,286 |
| 7. | San Antonio, TX | Rogers-UA | 102,856 |
| 8. | Tulsa, OK | United Cable TV | (1/82) 97,488 |
| 9. | Erie County, NY | Prime Cable | 92,965 |
| 10. | San Jose, CA | Gill Industries | (2/82) 90,283 |
| 11. | Audubon, NJ | NVT Cable | 89,600 |
| 12. | Tidewater, VA | Cox Cable | 85,297 |
| 13. | Austin, TX | ATC | (12/81) 80,000 |
| 14. | Central Islip, NY | Viacom | 81,277 |
| 15. | Honolulu, HI | ATC | (12/81) 79,000 |
| 16. | Orlando, FL | ATC | (12/81) 76,100 |
| 17. | Jefferson Parish/Kenner, LA | Cox Cable | 73,780 |
| 18. | Hartford/Meriden, CT | Times Mirror | (2/82) 70,392 |
| 19. | Manhattan, NY | Teleprompter | (1/82) 70,210 |
| 20. | Toledo, OH | Buckeye Cablevision | 70,447 |

**Note:** Subscriber counts are as of 3/31/82 unless noted otherwise.

# NOTE

ONLY THE FOLLOWING PAGES OF THIS

PUBLICATION HAVE BEEN FILMED

Cover 1, p. 8-9, 203-234, 259-260, 262, 264, 266, 268, 270, 272, 276, 281, Cable Plus 5-6, 10-11, 16-18, 20-22; 371, 436-437, 439, 441, 443, 445.